Clinical pharmacology: A challenging career field for Army docs

By Karen Fleming-Michael
U.S. Army Medical Research and Materiel Command Public Affairs

A lab scientist doing clinical pharmacology work was the last thing COL Colin Ohrt wanted to be when he was in his second year of studying new antimalarial drugs in rural Thailand and Indonesia.

"I wanted to be a doc, a clinical person," he said. "I didn't know what a clinical pharmacologist was."

After being strongly encouraged to train as a clinical pharmacologist a decade ago, Ohrt now thinks it was one of the best opportunities he's had since joining the Army.

In a nutshell, Army clinical pharmacologists are medical doctors who have a talent for developing medicines and creating clinical trials to safely test them in people. Also called translational medicine, clinical pharmacology is a growing career within the Army Medical Research and Materiel Command, which develops drugs and vaccines for service members and takes those products through the Food and Drug Administration's licensing process.

"The MRMC is focused on developing new therapeutics for the warfighter," said MAJ Kevin Leary, who completed his clinical pharmacology fellowship in June 2005. "It can take a long time, sometimes more than 10 years, for us to complete the necessary safety and efficacy studies to satisfy FDA requirements for approval. We're trying to get talented people interested in learning about clinical drug development so this process can be more efficient."

Army docs, like Leary, who complete the Army's training fellowship in clinical pharmacology, can end up conducting clinical trials at the Walter Reed Army Institute of Research,

MAJ Shon Remich a clinical pharmacologist with the U.S. Army Medical Research Unit–Kenya works in the field, helping to bring improved malaria drugs to people where the disease is endemic. Successes realized in these settings benefit servicemembers who may be stationed in areas where malaria is pervasive. (Photo by LTC Robert Scott Miller)

the Uniformed Services University of the Health Sciences or at the Walter Reed Army Institute of Research's overseas labs in Kenya or Thailand.

Leary, who tells people he's involved in clinical drug development because it's more descriptive than clinical pharmacology, said that "we are currently involved in clinical testing of new therapeutics for malaria to bridge the gap between bench work and more advanced clinical trials."

Ohrt now directs the Army's Clinical Pharmacology Fellowship Training Program, which targets its recruiting efforts toward doctors who have hands-on experience and have primary care backgrounds, like internal medicine, pediatrics or family practice, because they need to be able to take care of people in clinical trials.

"Although the primary focus of our work is research, we still see patients. We're medical

Fellowship info—
Clinicial Pharmacology

Defined: a medical sub-specialty concerned with better understanding and use of existing drugs and developing more effective and safer drugs for the future

Duties: receive training in clinical research, conduct basic research on drug actions and applied research in drug development, provide therapeutic advice to physicians, teach medical students

Duration: Two years, including time at Walter Reed Army Institute of Research, Silver Spring, Md.; the Uniformed Services University of the Health Sciences, Bethesda, Md.; and the Food and Drug Administration, Rockville, Md.

Application deadline: Sept. 15, opens July 15. The program begins July 1 of the following year. Interested Army doctors should contact their local Graduate Medical Education office; COL Colin Ohrt, co-director, Clinical Pharmacology Fellowship Training Program, colin.ohrt@us.army.mil; or Dr. Louis Cantilena, co-director, Clinical Pharmacology Fellowship Training Program, lcantilena@mxa.usuhs.mil

Duty stations after graduation:

- Walter Reed Army Institute of Research—drug development, teaching, basic and applied research, clinical research
- Kenya, Thailand—clinical studies and trials in areas where tropical infectious diseases are prevalent.
- Uniformed Services University of the Health Sciences—teaching, basic and applied research, clinical research
- U.S. Army Medical Materiel Development Activity, Fort Detrick—advanced product development, clinical research, teaching, regulatory affairs.
- Walter Reed Army Medical Center, National Naval Medical Center— teaching, consultation, clinical research.

doctors and need to maintain clinical skills," said Leary, who trained in internal medicine. Now at the Uniformed Services University of Health Sciences, he sees patients at the Walter Reed Army Medical Center and the National Naval Medical Center. He also teaches medical students, develops curriculum for the university's clinical pharmacology program and works on clinical trials for anti-malarial drugs.

MAJ David Saunders, the fellow starting in July, is currently serving in Operation Enduring Freedom, gaining hands on clinical experience in leishmaniasis and malaria and supporting the Army mission on the ground to gain greater understanding of the needs of the warfighter.

MAJ Kent Bennett, a doctor of osteopathic medicine in his first year of the clinical pharmacology training fellowship, says the program is what he expected. He's been taking classes two nights a week at the National Institutes of Health after spending his days at the Walter Reed Army Institute of Research in the Experimental Therapeutics Division, which specializes in creating drugs to treat malaria.

"Basically, I try to become the bridge between the basic scientist and the medical world," said Bennett, who is board certified in preventive medicine and was a pharmacist in a little hospital on an Indian reservation in New Mexico for the Indian Health Service before joining the Army. "I'm still a first year fellow, so I haven't done much on my own."

Next year, Bennett will spend time at the Uniformed Services University of the Health Sciences, which co-directs the fellowship. After that, he'll have a three-month rotation at the Food and Drug Administration so he can see how translational medicine ultimately comes together. He will also visit the Armed Forces Research Institute of Medical Science in Thailand to see if he and the lab are a good fit.

"That's the working hypothesis now, that I'll go to Thailand after the fellowship," he said.

Ohrt has spent a third of his career at over-

Additional Web info—
Clinicial Pharmacology

◆ ***WRAIR Clinical Pharmacology Web site:*** http://wrair-www.army.mil/TrainingPrograms/ClinicalPharmacology/ClinicalPharmacology.asp

◆ ***American Society of Clinical Pharmacology and Therapetuics:*** www.ascpt.org

◆ ***ASCPT Annual Meeting:*** http://www.ascpt.org/annualmeeting2006/2006_brochure.pdf

◆ ***American Board of Clinical Pharmacology:*** www.abcp.net

seas labs, and is convinced the time clinical pharmacologists spend there helps improve military and public health. "The military has a problem with malaria, so we do drug development. But there are one to two million deaths per year and 500,000 cases of illness every year from malaria. Instead of getting better it's actually getting worse," he said. "This is a disease that actually can be eliminated from many parts of the world. Compared to the other major public health problems, like HIV and cancer, it's still relatively neglected because people living in the Western world aren't affected much."

The Army offers one slot every year for the fellowship. "We are looking for the right people to apply," Ohrt said. No other military service offers the career, so the group is a tight-knit fraternity within the Army.

"It's a real way to make a difference but in a different way than what the usual physician does, which is one patient at a time," he said. "You can make substantial new discoveries that will impact public health."